

In the Claims:

1. (Currently Amended) A method of measuring optical signal power in an optical system, comprising:
 - receiving optical signals at a wavelength select switch;
 - passing a subset of the optical signals comprised of more than one individual wavelength through the wavelength select switch at substantially the same time to a power meter;
 - measuring power in the subset of optical signals using the power meter; [[and]]
 - displaying an indication of the optical signal power in the optical signals on a monitor to a system administrator; and
 - controlling an optical amplifier in accordance with the power of the optical signals to regulate optical signal power of the optical signals.
2. (Cancelled).
3. (Original) The method of claim 1 wherein the optical signals comprise different wavelengths of optical energy.
4. (Original) The method of claim 1, further comprising:
 - diverting a portion of optical energy on an optical medium to obtain the optical signals.
5. (Previously Presented) The method of claim 4 wherein diverting comprises:
 - using a power splitter to divert a portion of the optical signal power from an incident signal.
6. (Cancelled).
7. (Original) The method of claim 1, further comprising:
 - successively directing other ones of the optical signals through the wavelength select switch to the power meter; and
 - measuring power in the other optical signals using the power meter.

8-9. (Cancelled).

10. (Previously Presented) The method of claim 1, further comprising:
determining if the power in the optical signals has crossed a predetermined threshold; and
triggering an alarm if the power in the optical signals has crossed the predetermined threshold.

11. (Currently Amended) The method of claim 1, wherein the optical system includes a transmission medium from which the optical signals are received, ~~and the method~~ wherein the operation of controlling an optical amplifier further comprises:

controlling ~~[[an]]~~ the optical amplifier in accordance with the power of the optical signals to regulate optical power of the optical signals on the transmission medium.

12. (Currently Amended) Apparatus for measuring optical signal power in an optical system, comprising:

a wavelength select switch having output ports to selectively pass received optical signals to one of the output ports wherein the wavelength select switch passes a subset of the optical signals comprised of more than one individual wavelength to the one of the output ports at the same time and a power meter measures power in the subset of the optical signals;

the power meter which receives optical signals from an output port and measures the power in the optical signals; ~~[[and]]~~

a monitor for displaying an indication of the optical signal power in the optical signals to a system administrator; and

a controller which controls an optical amplifier by generating a control signal for the optical amplifier in accordance with the power of the optical signals to regulate optical signal power of the optical signals.

13. (Cancelled).

14. (Original) The apparatus of claim 12 wherein the optical signals comprise different wavelengths of light.

15. (Original) The apparatus of claim 12, further comprising:
an optical tap that diverts a portion of optical signals incident on an optical medium to obtain the optical signals.
16. (Previously Presented) The apparatus of claim 15 wherein the optical tap diverts a portion of power from the optical signals.
17. (Original) The apparatus of claim 12 wherein the optical system comprises a dense wavelength division multiplexing (DWDM) system.
18. (Previously Presented) The apparatus of claim 12 wherein the wavelength select switch cycles others of the optical signals to the output port and the power meter measures power in the others of the optical signals.
- 19-23. (Cancelled).
24. (Previously Presented) The method of claim 1, wherein measuring power in the subset of optical signals using the power meter, comprises:
combining the power of all of the optical signals in the subset.
25. (Previously Presented) The apparatus of claim 12 wherein the power of the optical signals measured by the power meter is the combined power of the optical signals.